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Amdt. Dated 3/22/2004
Response to Office action dated 01/12/2004

REMARKS

Claims 1-36 and 38-54 are pending. No new matter has been added. The Examiner is thanked for withdrawing the §§ 102 and 103 rejections from Fletcher, and for his response to the remarks in the Response filed 07/23/2003.

Disclaimers Relating to Claim Interpretation and Prosecution History Estoppel

Claims and have been amended, and claims have been canceled, notwithstanding the belief that these claims were allowable. Except as specifically admitted below, no claim elements have been narrowed. Rather, cosmetic amendments have been made to the claims and to broaden them in view of the cited art. Claims 1, 31, 38 and 46 have been amended solely for the purpose of expediting the patent application process, and the amendments were not necessary for patentability. The amendments did not change the scope of the claims.

Any reference herein to "the invention" is intended to refer to the specific claim or claims being addressed herein. The claims of this Application are intended to stand on their own and are not to be read in light of the prosecution history of any related or unrelated patent or patent application. Furthermore, no arguments in any prosecution history relate to any claim in this Application, except for arguments specifically directed to the claim.

Claim Rejections - 35 USC § 112

The Examiner rejected claims 16-18, 35, 45 and 53 under 35 USC § 112, second paragraph as indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. This rejection is respectfully traversed. The Examiner stated that the claims "fail to point out which TCP flag is set. As taught by Comer, there are 6 possible flags that can be set, depending on certain conditions, such as urgency or synchronizing."

Firstly, the Examiner is reminded that the MPEP discourages piecemeal examination. Claims 16-18 are original. The § 112 rejection, though new, could have and should have been raised in the

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first Office Action. *See* MPEP 707.07. Indeed, the rejection of claims 16-18 violates 37 CFR 1.104(b), which states:

Completeness of examiner's action. The examiner's action will be complete as to all matters, except that in appropriate circumstances, such as misjoinder of invention, fundamental defects in the application, and the like, the action of the examiner may be limited to such matters before further action is made. However, matters of form need not be raised by the examiner until a claim is found allowable.

The § 112 rejection of claims 16-18, 35, 45 and 53 is identical. Had the Examiner properly made the rejection in the first Office Action, the rejection of claims 35, 45 and 53 would be moot.

Obviously, the Examiner previously considered claims 16-18 to satisfy § 112. Presumably, ten months ago, the Examiner recognized that one of ordinary skill in the art could easily understand the scope of these claims. The Examiner himself stated that there are six possible flags. Presumably, ten months ago the Examiner concluded that selection of one of these six flags was not so complex that it rendered the claims indefinite. Examiner is therefore respectfully requested to reconsider the rejection and withdraw it for the same reason that he originally believed that claims 16-18 were sufficiently definite.

The undersigned recognizes that sometimes, people change their minds. If the Examiner is not willing to change back to his original position, then he is requested to suggest an amendment to these claims to render them sufficiently definite in his view.

Claim Rejections - 35 USC § 102 – Public Use or On Sale

The Examiner rejected claims 1-54 under 35 USC § 102(b) based upon a public use or sale of the invention. The rejection is based upon pure speculation and is therefore respectfully traversed. While the Examiner may have been on solid ground in requesting additional information, the rejection is unfounded and should be withdrawn.

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So far, two attempts have been made to satisfy the Examiner's request for information about Ixia's IxExplorer application program and IXIA 200 chassis. In the first attempt, a Declaration of David Schneider was filed in which he stated (emphasis added):

4. Between July 11 and July 16, 2003 I undertook a search for publications by Ixia dated prior to June 9, 2000 and relating to measurement of round trip delay (at Ixia, we generally call this Round Trip Flows, or "RTF"). My search included the following features: (a) the use of timestamps on transmitted packets; (b) synchronization of multiple chassis; (c) latency measurements using packet groups; and (d) the TCL API that provides access to these features.

5. These features are described in the Theory chapter now included in most Ixia manuals and in appropriate sections of the IxExplorer manuals.

6. In November, 1999 Ixia first made available release 2.1 of its IxExplorer product. A revised manual accompanied this release; this manual includes the earliest appearance of any description of RTF in any Ixia manual.

Thus, it cannot be clearer that the November, 1999 version of the IxExplorer manual was the first to describe the features of the invention as claimed. Yet, the Examiner entirely disregarded this statement and instead concluded (based only upon speculation) that the November, 1999 manual was substantially identical to some other manual available on April 25, 1999.

Even more perplexing is the Examiner's legal conclusion that the IxExplorer manual rendered the claimed invention on sale and in public use more than one year prior to the filing date of the Application. How could publication of a user's manual render an invention on sale and in public use?

The Examiner also speculated that, because the IXIA 200 product was announced on October 19, 1998, the invention was somehow on sale at that time. Yet, the IXIA 200 could not itself provide RTF. The IXIA 200 is a chassis. Like a PC, it is a platform upon which options may be installed. IxExplorer is like an application program for the PC. Certainly, no reasonable person would expect

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that a sale of the PC would render features found only in a separate and later published application program to also be on sale. The Examiner made similar, unsupported speculation about other Ixia products.

So far, a reasonable, good faith and costly effort has been made to comply with the Examiner's request for information. This issue needs to be put to rest, and the undersigned respectfully requests the Examiner's assistance in creating a sufficient record which will satisfy him.

Claim Rejections - 35 USC § 102 – Printed Publication

The Examiner rejected claims 31, 32, 34, 36-39, 41, 42, 46, 48-50 and 54 under 35 USC § 102(b) as anticipated by Link (USP 6,012,096). This rejection is respectfully traversed.

Link is directed to measurement of peer-to-peer network latency in a networked gaming environment. Link discloses a sequence of three UDP packets for measuring latency between a local client and a remote client. The local client sends a UDP "ping packet" to the remote client. The ping packet includes a time stamp of its time of transmission. When the remote client receives the ping packet, the remote client forms a UDP "response packet" for transmission to the local client. The remote client includes a time stamp in the response packet to indicate the time of transmission. However, the remote client also includes the time stamp from the ping packet, essentially as payload data in the response packet: "the response packet includes the remote client's current timestamp along with the other timestamp, which is left intact." 5:23-25. Thus, the time stamp in the response packet shows its time of transmission, not the time of transmission of the ping packet. When the local client receives the response packet, it forms a UDP "response-response packet." Link defines the response-response packet as having two data fields – a first with the time stamp of the time of transmission from the response packet and a second with a latency calculation. The response-response packet does not have a time stamp for its time of transmission.

The invention of claim 31 is an electronic apparatus for determining a time delay for a round-trip transmission of data. The electronic apparatus includes "a data pattern management portion for

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managing an insertion of a data pattern into an outgoing data packet.” One of the functions of the data pattern management portion is “setting the second time stamp to be the first time stamp.” Claim 31 recites that “the first time stamp” is “for indicating a time of transmission of the incoming data packet.” Claim 31 further recites that “the second time stamp” is “for indicating a time of transmission of the outgoing data packet.” This clever arrangement allows simpler implementation and faster processing than in designs such as Link’s.

Although Link also uses time stamps to determine round trip delay, it is apparent that Link is quite different from the invention of claim 31. In particular, Link has no disclosure, teaching or suggestion of setting a transmission time of an outgoing data packet to be the transmission time of an incoming packet. Thus, Link does not set “the second time stamp to be the first time stamp” and does not anticipate or render obvious claim 31.

In rejecting claim 32, the Examiner stated that Link discloses “a data validity portion for validating the incoming data packet.” The Examiner cites to “Figure 1 [blocks 53], 5 [blocks 80a]; column 4, lines 4-31; column 6, lines 19-33.” None of these portions nor any other part of Link has any disclosure, teaching or suggestion of a data validity portion as claimed. The Examiner has made a citation to generic portions of Link which are irrelevant to the limitation. It may be that the Examiner wishes to rely upon Link’s disclosure of UDP packets as an inherent disclosure of the claimed “data validity portion.” If so, then the Examiner must fully explain his inherency arguments, as explained in the Response filed 07/23/2003. Absent a proper rejection, the Examiner should withdraw the rejection of claim 32.

In rejecting claims 34 and 54, the Examiner stated that Link discloses that various portions “are located within a field-programmable gate array (Figure 1 [blocks 53]; column 4, lines 4-31).” Yet Link nowhere discloses, teaches or suggests anything about field-programmable gate arrays. In fact, Link does not even use the terms field-programmable gate array or FPGA at all. The Examiner therefore should withdraw the rejection of claims 34 and 54.

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Claim 38 is independent and directed to a method of determining a time delay for a round-trip transmission of data. Claim 46 includes similar recitation as claim 38. Claim 46 is independent and directed to an apparatus for determining a time delay for a round-trip transmission of data. Claims 38 and 46 recite "a first time stamp indicating a first time when the first data packet was transmitted;" "a second time stamp for indicating a second time when the second data packet is transmitted;" and "setting" or "means for inserting" "the first time stamp as the second time stamp in the second data packet." As explained above with respect to claim 31, Link has no disclosure, teaching or suggestion of these limitations. Thus, Link does not anticipate or render obvious claims 38 or 46 and the rejections should be withdrawn.

Claims 39 and 48 included limitations to "validating the first destination value." The Examiner cited to "Figures 2 [block 70], 3, 8 [block 802], 9 [block 922]; column 4, lines 66 to column 4, lines 12; column 6, lines 34-53." Neither these portions nor any other part of Link disclose, teach or suggest the claimed limitation. At most, Link discloses adding and removing IP addresses in an IP address table. Certainly, the mere acts of adding and removing does not include the act of validating. Thus, Link does not anticipate or render obvious claims 39 or 48 and the rejections should be withdrawn.

Claim Rejections - 35 USC § 103

The Examiner rejected claims 1-29, 33, 35, 40, 43-45, 47 and 51-53 under 35 USC § 103 as obvious from Link. This rejection is respectfully traversed.

The invention of claim 1 is a method of determining a time delay for a round-trip transmission of data. Claim 1 recites first and second data packets which respectively include TCP source ports and TCP destination ports.

As explained above, Link is directed to measuring network delays using UDP packets. The Examiner recognized that Link does not disclose, teach or suggest using TCP instead of UDP. However, the Examiner concluded that because TCP has certain known benefits over UDP, that one

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of ordinary skill in the art would be motivated to modify Link to use TCP in the manner claimed. In reliance upon this motivation, the Examiner cites to "Internetworking with TCP/IP Principles, Protocols, and Architectures" by Douglas E. Comer.¹ Certainly, the option of using TCP packets instead of UDP packets was available to Link. Thus, one must naturally ask why Link chose UDP instead of TCP. The clear answer is that Link believed that UDP was better than TCP. Perhaps this is because the benefits of TCP over UDP come at a cost, and Link was unable to provide a solution which overcame these costs, whereas the present inventors were able to do so. The fact that Link (a patent assigned to Microsoft) does not even disclose TCP packets can only be taken as a teaching away from TCP packets.

Even if one of ordinary skill in the art would be motivated (absent the hindsight of the Application) to modify Link to use TCP packets instead of UDP packets, there is still no basis for concluding that all of the claimed steps would be performed. The Examiner has not even made a *prima facie* case that Link would have included:

inserting the first TCP destination port as a second TCP source port in the second data packet;

inserting the first TCP source port as a second TCP destination port in the second data packet;

Nor does the Examiner explain how it would be obvious to modify Link to provide:

a first data packet comprising . . . a first time stamp indicating a first time when the first data packet was transmitted

inserting the first time stamp as a second time stamp in the second data packet, wherein the second time stamp is for indicating a second time when the second data packet is transmitted

Thus, the rejection of claim 1 for obvious is not well founded and should be withdrawn.

¹ Notably, although the Examiner has extensively explored the issue of publication dates of the IXIA documents, he fails to provide a date of publication of Comer. Nor does he provide a publication date for the other non-patent references upon which he has cited. The undersigned therefore reserves the right to object to the Examiner's reliance upon these references, and asks that the Examiner provide a publication date. To be citable, this publication dates should be prior to 06/09/1999.

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The Examiner rejected claims 3, 7-11, 22, 24 and 27 for reasons similar to his rejection of claims 39 and 48. One is left to wonder how the Examiner could have concluded that Link discloses, teaches or suggests the limitations of these claims. Link has no disclosure, teaching or suggestion of any kind of validation, CRC checksums or other checksums. Link at column 6, lines 19-33, which the Examiner seems to rely upon for all of these rejections, is irrelevant. The Examiner has not made a *prima facie* of obviousness. Thus, the rejection of claims 3, 7-11, 22, 24 and 27 should be withdrawn.

The Examiner's rejection of claims 16-22, 24, 27, 35, 45 and 53 is mysterious. The Examiner admitted that Link discloses only UDP. These claims include limitations to TCP flags. Link nowhere discloses, teaches or suggests TCP flags, yet the Examiner relies solely upon Link for his conclusion that these limitations are obvious. To be sure, there is no basis for concluding that Link or the cited references motivate Link to be modified to include the claimed limitations. Thus, the rejection of claims 16-22, 24, 27, 35, 45 and 53 should be withdrawn.

The Examiner also rejected claim 30 as obvious from Link in view of Fletcher (USP 6,321,264). This rejection is respectfully traversed. The Examiner's reliance upon Fletcher as disclosing the claimed features is incorrect, and the alleged motivation to combine is not relevant. The Examiner has failed to make a *prima facie* case of obviousness. Thus, the rejection of claim 30 should be withdrawn.

Conclusion

It is submitted, however, that the independent and dependant claims include other significant and substantial recitations which are not disclosed in the cited references. Thus, the claims are also patentable for additional reasons. However, for economy the additional grounds for patentability are not set forth here.

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In view of all of the above, it is respectfully submitted that the present application is now in condition for allowance. Reconsideration and reexamination are respectfully requested and allowance at an early date is solicited.

The Examiner is invited to call the undersigned attorney to answer any questions or to discuss steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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